

REMARKS/ARGUMENTS

Claims 1-9 are pending, claim 7 having been withdrawn from consideration. By this Amendment, claim 1 is amended. Support for the amendments to claim 1 can be found, for example, in the present specification at page 6, line 4, page 7, line 21, page 9, line 10, and page 10, line 22, in the Declaration Under 37 C.F.R. §1.132 ("Declaration") attached hereto, and in original claim 1. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Amendment to Claim 1

By this Amendment, claim 1 is amended to recite that "the at least one oxidized starch and the at least one cellulose compound are chemically bonded to one another." Support for the amendment to claim 1 can be found in the Declaration, which demonstrates that chemical bonding between oxidized starches and cellulose is inherent in the disclosure of the present application. *See* Declaration, paragraphs 9 to 14. In particular, the processes described in the Examples of the present specification necessarily result in chemical bonding between oxidized starches and cellulose. *See, e.g.,* MPEP §2163.07(a).

Rejection Under 35 U.S.C. §102

The Office Action rejects claims 1, 4, 8 and 9 under 35 U.S.C. §102(b) over U.S. Patent No. 6,419,903 to Xu et al. ("Xu"). Applicants respectfully traverse the rejection.

Claim 1 recites "[a]n edible film, comprising: at least one oxidized starch ... at least one cellulose compound ... and at least one active substance ... wherein: the at least one oxidized starch and the at least one cellulose compound are chemically bonded to one another; and the film is composed so that the film will dissolve within 10 seconds of contact with saliva" (emphasis added). Xu does not disclose or suggest such a film.

Xu does not disclose or suggest a composition that includes an oxidized starch chemically bonded to a cellulose, as recited in claim 1. At best, Xu discloses a homogeneous mixture of a cellulose and a pre-gelatinized starch. *See Xu*, column 4, lines 54-63. The homogeneous mixture described in Example 1 of Xu is obtained by mixing a pre-gelatinized starch and a cellulose as a solution in deionized water. *See id.* There is no indication that the aqueous mixture of Xu is treated in a manner that would induce chemical bonding between the starch and the cellulose.

A cellulose compound, such as hydroxypropyl cellulose, includes hydroxyl (i.e., -OH) and ether groups (i.e., R-O-R). *See Declaration*, paragraph 11. A starch also includes hydroxyl and ether groups. *See Declaration*, paragraph 11. However, a pregelatinized starch, such as employed in Xu, differs in structure from an oxidized starch, such as employed in the edible film of claim 1. Namely, an oxidized starch further includes carboxyl groups (i.e., -COOH), while a pregelatinized starch does not include such groups. *See Declaration*, paragraphs 10, 11 and 16. As a result of this difference, the structure resulting when a cellulose and pregelatinized starch are combined, as in Xu, differs from the structure resulting when a cellulose and an oxidized starch are combined, as in claim 1. In particular, an esterification reaction takes place between an oxidized starch and cellulose to form a strong chemical bond between the oxidized starch and the cellulose, while no such chemical bond is formed when a cellulose and a pregelatinized starch are combined. *See Declaration*, paragraphs 11, 12 and 17. Accordingly, the composition of Xu does not include a structure in which "the at least one oxidized starch and the at least one cellulose compound are chemically bonded to one another," as recited in claim 1.

As Xu fails to disclose or suggest an edible film including at least one oxidized starch that is chemically bound to at least one cellulose compound, Xu fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by Xu. Claims 4, 8 and 9 depend from claim 1 and, thus, also are not anticipated by Xu. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1-6, 8 and 9 under 35 U.S.C. §103(a) over Xu in view of U.S. Patent No. 4,345,032 to Hata ("Hata") and U.S. Patent No. 5,206,026 to Sharik ("Sharik"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Xu fails to disclose or suggest the film of claim 1. Hata is cited for its alleged disclosure of lactobacillus strains having the ability to deodorize foul breath. *See* Office Action, pages 6 to 7. Sharik is cited for its alleged disclosure of films including film-forming polymers such as hydroxyethyl cellulose. *See* Office Action, page 7. However, as Hata and Sharik, like Xu, fail to disclose or suggest an edible film including at least one oxidized starch that is chemically bound to at least one cellulose compound, the combination of references cannot render claim 1 obvious.

As explained, claim 1 would not have been rendered obvious by Xu, Hata and Sharik. Claims 2-6, 8 and 9 depend from claim 1 and, thus, also would not have been rendered obvious by Xu, Hata and Sharik. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the foregoing reasons, Applicants submit that claims 1-9 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

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Attachment:
Declaration Under 37 C.F.R. §1.132